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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,994	12/29/2000	Ashok Singhal	M-8750 US	7710
32566	7590	11/09/2004	EXAMINER	
PATENT LAW GROUP LLP 2635 NORTH FIRST STREET SUITE 223 SAN JOSE, CA 95134			CHANG, JUNGWON	
			ART UNIT	PAPER NUMBER
			2154	

DATE MAILED: 11/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/751,994	Applicant(s) SINGHAL ET AL.	
	Examiner Jungwon Chang	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/20/01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to a response applicant filed on 8/14/2004. Claims 1 and 6 are withdrawn and Claims 2-5 are elected. Claims 2-5 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Janakiraman et al. (US 6,374,331), hereinafter referred to as Janakiraman, in view of Noya (US 6,513,142).

4. As to claim 2, Janakiraman discloses the invention substantially as claimed, including a method for communicating data in an interconnect system (col. 2, lines 51-55) comprising a plurality of nodes (200-500, fig. 1), each node having a respective memory (210-410, fig. 1) comprising a plurality of lines (col. 1, lines 41-44 and 59-61; col. 3, lines 46-47), each line of the same predetermined size (i.e., a portion of memory tens of bytes in size; col. 1, lines 41-44), the method comprising:

providing new data for writing into a portion of a particular line of memory located at a local node (col. 5, lines 15-18; col. 6, lines 54-60); and

transferring the data over a communication link (col. 2, lines 53-55) to a remote node for writing into memory located at the remote node (col. 2, lines 33-38; col. 3, lines 14-16; col. 4, lines 36-50).

5. Janakiraman does not specifically disclose reading out existing data from the particular line of memory located at the local node; and merging the new data with the existing data. However, Noya discloses reading out existing data from the particular line of memory located at the local node (read old block #2, A, fig. 4, read old block #2; col. 5, lines 27-29) and merging the new data with the existing data (XOR old block #2 data with new block #2 data, B, fig. 4; col. 5, lines 34-39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Janakiraman and Noya because Noya's merging the two data would allow maintaining the old data.

6. As to claim 3, Janakiraman discloses issuing a memory copy write command over the communication link (col. 1, lines 46-55; col. 5, lines 15-22).

7. As to claims 4 and 5, Janakiraman discloses issuing (i.e., transferring) a network message from the local node to the remote node over a communication link (260, fig. 6) (col. 6, lines 54-60; col. 7, lines 10-34). However, Janakiraman does not specifically

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disclose a command packet. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include command packet because it would allow the node to communicate with intended node by indicating the destination node ID and type of command in the header of the packet.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Humlicek et al, Pub. No. 2004/0015657 discloses method and system for combining old data with new data.

Passint et al, patent 6,633,958, Bauman et al, patent 6,415,364 disclose memory system coupled to multiple processors for accepting read and write memory requests from ones of the multiple processors.

Wipfel et al, patent 6,353,898 discloses method and system for managing resources in a computing cluster.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jungwon Chang whose telephone number is (703)305-9669. The examiner can normally be reached on 9:30-6:00 (Monday-Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on (703)305-8498. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'JWC' followed by a stylized flourish.

JWC

November 2, 2004